

CLAIMS

1. A method for packaging flat objects (10) with a packaging material (1) comprising a first and a second surface and being supplied as a quasi-endless web, the method comprising the steps of:
 - forming a string of bags (1') from the packaging material (1) and conveying the string of bags in a conveying direction (F),
 - charging the bags (1') with the objects (10) to be packaged,
 - severing the bags from the string of bags, and
 - sealing the bags,

wherein the step of forming comprises gripping the packaging material (1) from the first surface at gripping points spaced from each other by a distance and then reducing the distance between the gripping points and making the packaging material (1) to buckle in a same direction between all gripping points.
2. The method according to claim 1, wherein the direction in which the packaging material (1) is made to buckle between the gripping points is oriented away from the second surface.
3. The method according to claim 2, wherein, on forming the string of bags, the width of the packaging material (1) is oriented essentially horizontal, the first surface facing upwards; and wherein the packaging material (1) is made to buckle downwards between the gripping points, and wherein the bags (1') are charged from above.
4. The method according to claim 1, wherein, after charging, the bags (1') of the string are transferred to sealing means (16), and are then severed from the string of bags (1') and then sealed.

5. The method according to claim 1, wherein the bags (1') of the string of bags are partly severed from each other and sealed along lateral sides prior to being charged.
6. The method according to claim 5, wherein a bonding agent is applied to the packaging material (1) prior to sealing the lateral bag sides.
7. The method according to claim 1, wherein the bags (1') of the string of bags are buffered prior to being charged and/or sealed.
8. A device for packaging flat objects (10) with a packaging material (1) comprising a first and a second surface and being supplied as a quasi-endless web, which device comprises
 - a means for supplying the packaging material (1),
 - a conveying system (3) for forming a string of bags (1') from the packaging material (1) and for conveying the string of bags,
 - a charging means for charging the bags (1') with objects (10) to be packaged,
 - a severing means (20) for severing the bags (1') from the string of bags, and
 - a sealing means for sealing the bags (1'),

wherein the conveyor system (3) comprises gripping elements (6) equipped for being conveyed at variable distances from each other and for gripping the packaging material (1) from its first surface, and further comprises a first control means for activating the gripping elements and a second control means, arranged downstream of the first control means for reducing the distances between the gripping elements (6).
9. The device according to claim 8, wherein the supply means is equipped for supplying the packaging material (1) with an essentially horizontal width, and wherein the gripping elements (6) are arranged for gripping the packaging material (1) from above so that the packaging material (1) buckles downwards by gravity between the gripping elements (6).

10. The device according to claim 8, and further comprising additional supporting elements (7) being driven synchronously with the gripping elements (6) and being equipped for acting on the packaging material (1) from its second surface driving it into the gripping elements (6).
11. The device according to claims 8, wherein the gripping elements (6) are arranged on gripper bars (5), wherein ends of the gripper bars (5) are driven and guided sliding or rolling in guide rails (4) running alongside the packaging material (1).
12. The device according to claim 8, wherein the sealing means comprises a plurality of sealing elements (16) equipped for being inserted between the bags (1') conveyed by the gripping elements (6), and for being closed around the bags (1').
13. The device according to claim 12, wherein the sealing means further comprises a plurality of holding elements (15) equipped for holding the bags (1') at side opposite the side gripped by the gripping elements (6).
14. The device according to claim 12, wherein the sealing elements (16) and possibly the holding elements (15) are parts of a drum-like installation (17).
15. The device according to claim 8, and further comprising a pre-severing means (20') for partly severing the packaging material (1) being arranged upstream of the severing means (20) and a pre-sealing means (33) for sealing lateral sides of the bags (1') is arranged upstream of the sealing means.
16. The device according to claim 15, and further comprising a means (31) for applying a bonding agent to the packaging material.
17. The device according to claim 15, and further comprising a pre-conveyor system (3') being arranged upstream of the conveyor system (3), the pre-conveyor sys-

tem (3') comprising pre-gripping elements (6') acting on the packaging material (1) from the same surface as the gripping elements (6) and being equipped and controlled for gripping the packaging material at the gripping points and pass the gripping points on to the gripping elements (6).